

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A silent chain power transmitting apparatus comprising sprocket wheels and a silent chain having a plurality of link plates, each link plate having a pair of teeth, each of the teeth having an inside flank and an outside flank, the link plates being connected to each other through connecting pins so as to form ~~the an endless~~ silent chain ~~in endless~~, and the sprocket wheel having a predetermined number of sprocket teeth meshed with the teeth of the silent chain,

wherein each of the inside flank and the outside flank is profiled by a circular shape of ~~at~~ the same radius of curvature whose individual center of curvature is on a pitch line of the silent chain, and each of the teeth of the sprocket wheel is profiled by ~~a~~ the circular shape of the same radius of curvature ~~of~~ as the inside flank and the outside flank of the link plate teeth.

2. (currently amended): The silent chain power transmitting apparatus according to claim 1, wherein a radius of curvature of a circular shape of a concave portion formed between adjacent teeth of the sprocket wheel is different from the radius of curvature of the circular shape of the tooth formed between the adjacent inside flank and outside flank of the link plate.

3. (original): The silent chain power transmitting apparatus according to claim 1, wherein the sprocket wheel and the link plates are composed of one of a steel, a sintered metal, an iron, a ferrous alloy, nonferrous alloy, and nonmetal such as a plastic.

4. (currently amended): A silent chain power transmitting apparatus according to claim 1, wherein each of the teeth of the sprocket wheel is profiled by the circular shape of a radius of curvature which is within a manufacturing error ~~over~~from zero to 5% of the radius of curvature of each of the inside flank and the outside flank.

5. (new): A silent chain powered transmitting apparatus comprising:

sprocket wheels having a predetermined number of teeth; and

a plurality link of plates having a pair of teeth, each of the link plates connected by connecting pins to form an endless chain, each of the link plate teeth having an inside flank and an outside flank;

wherein, each of the inside flank and each of the outside flank is profiled by a first convex curvature having a radius which has a center of curvature on a pitch line of the chain, and each of the teeth of the sprocket wheels have symmetric flanks profiled by a second convex curvature which is the same as the first convex curvature.

6. (new): The silent chain powered transmitting apparatus according to claim 5, wherein a concave portion on the sprocket between the sprocket teeth has a first radius of curvature which is greater than a second radius of curvature on a portion formed between the adjacent inside flank and outside flank of each of the teeth.

7. (new): The silent chain powered transmitting apparatus according to claim 5, wherein the center of curvature of the outside flank of both a first tooth and a second tooth on a first link plate is located on the pitch line midway between the connecting pins on the link plate, the center of curvature of the inside flank of the first tooth is located on the pitch line midway between the connecting pins on a second link plate adjacent to the first tooth side of the first link plate, and the center of curvature of the inside flank of the second tooth is located on the pitch line midway between the connecting pins on a third link plate adjacent to the second tooth side of the first link plate.